

## Title (en)

TRANSMISSION DEVICE, TRANSMISSION METHOD, RECEPTION DEVICE, AND RECEPTION METHOD

## Title (de)

SENDEVORRICHTUNG, SENDEVERFAHREN, EMPFANGSVORRICHTUNG UND EMPFANGSVERFAHREN

## Title (fr)

DISPOSITIF ET PROCÉDÉ D'ÉMISSION, DISPOSITIF ET PROCÉDÉ DE RÉCEPTION

## Publication

**EP 3544191 A1 20190925 (EN)**

## Application

**EP 17872229 A 20171106**

## Priority

- JP 2016224603 A 20161118
- JP 2017039856 W 20171106

## Abstract (en)

The present technique relates to a transmission apparatus, a transmission method, a reception apparatus, and a reception method that can ensure favorable communication quality in data transmission using an LDPC code. LDPC coding is performed based on a check matrix of an LDPC code with a code length  $N$  of 69120 bits and a code rate  $r$  of 5/16, 6/16, 7/16, or 8/16. The check matrix includes a matrix  $A$  with  $M1$  rows and  $K$  columns, where  $M1$  represents a predetermined value, and  $K=N \times r$  represents an information length of the LDPC code, a matrix  $B$  with  $M1$  rows and  $M1$  columns in a dual diagonal structure, a matrix  $Z$  with  $M1$  rows and  $N-K-M1$  columns that is a zero matrix, a matrix  $C$  with  $N-K-M1$  rows and  $K+M1$  columns, and a matrix  $D$  with  $N-K-M1$  rows and  $N-K-M1$  columns that is an identity matrix. The matrix  $A$  and the matrix  $C$  are represented by a check matrix initial value table. The check matrix initial value table is a table indicating positions of elements of 1 in the matrix  $A$  and the matrix  $C$  on a basis of 360 columns and is a predetermined table. The present technique can be applied to, for example, data transmission using the LDPC code.

## IPC 8 full level

**H03M 13/19** (2006.01)

## CPC (source: EP KR US)

**H03M 13/036** (2013.01 - EP US); **H03M 13/1148** (2013.01 - KR US); **H03M 13/1165** (2013.01 - EP US); **H03M 13/19** (2013.01 - KR); **H03M 13/255** (2013.01 - EP US); **H03M 13/271** (2013.01 - EP US); **H03M 13/2778** (2013.01 - EP US); **H03M 13/2906** (2013.01 - EP US); **H04L 1/00** (2013.01 - US); **H04L 1/0041** (2013.01 - US); **H04L 1/0045** (2013.01 - US); **H04L 1/0057** (2013.01 - US); **H03M 13/152** (2013.01 - EP US); **H04L 27/20** (2013.01 - US)

## Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

## Designated extension state (EPC)

BA ME

## DOCDB simple family (publication)

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## DOCDB simple family (application)

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